

Research Scientist

As a Research Scientist with this ministry you will always have two masters: your peers in the scientific world and your supervisors. To your peers you must, of course, base your conclusions on solid information through traditional scientific research. To senior people in the ministry, however, you must be prepared to give an expert opinion on the facts available, or to indulge in deductive science.

As a Research Scientist in our ministry you are primarily a biologist, forester, or geologist with a degree at the graduate level. Your work is generally based on sound scientific principles. But in addition, you are expected to contribute fruitful insights and improvements to help expand the body of knowledge of your speciality field. Our scientists are also expected to present papers on their research to other members of the scientific community, even at the international level.

You usually work in relative isolation from the mainstream of the ministry's administration and programs. However, your findings and predictions are often crucial to ministry decisions. As a scientist you must have the ability and self-discipline to work for long periods of time with little supervision, to devote yourself thoroughly to your specific research and to assess the validity of your results.

Geologist

With the decreasing of the world's supply of non-renewable resources, our ministry is concerned about making the best possible use of Ontario's important mineral and petroleum reserves. We rely on our Geologists to give us interpretations of what we have, where it is, and how we can use it.

As a Geologist, you might be analysing drill cuttings from oil and gas wells, identifying rock types in the field, constructing geological maps, or studying the potential for petroleum exploration in complex geological formations. You write reports on your research, discuss the results with industry geologists, and create computerized summaries of statistics on all phases of the industries. Where do the reports go? Your work is used directly by private industry in planning exploration programs, and assists the ministry and the Ontario Energy Board in directing programs and establishing policy.

Armed with a university geology degree, our Geologists usually find themselves busy at work in the field and laboratories or compiling reports and statistics in an office. Occasionally you will be asked to conduct direct field research by visiting a gas drilling rig in the middle of Lake Erie or running a summer mapping program in northern Ontario.

You should have extensive knowledge of geology related to aggregate, mineral and petroleum deposits, preferably with specialized training in surficial geology, base metal exploration or sedimentology. A few summers of field experience would be advantageous.

Because of the highly specialized technical training required in this field the salaries paid to mineral and petroleum resources professionals rank among the highest.



Planner

We have to use our resources more efficiently these days and planning is important at all levels of our many resource management programs. Our Planners study data to predict future needs and growth patterns of other ministry branches and private interests.

Planners don't have the time to be specialists on any particular resource management issue. Their abilities are used to bring together a wide range of research and opinion before forming targets and long range objectives.

Some Planners concentrate on the problems and opportunities facing our provincial park system, some are primarily involved with environmental concerns, and others have a somewhat broader focus involving the preparation of land use plans and strategies.

While Planners must be well versed in natural resource management, another important aspect of the job requires the ability to communicate effectively with ministry specialists, other agencies and levels of government, or the general public through such channels as public hearings. A degree from a university in planning, geography, biology, economics or forestry should be your initial target toward securing a position in this expanding field.

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Scientific and Professional Services

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Job Profiles



Ministry of
Natural
Resources

Introduction To Ministry of Natural Resources Scientific and Professional Services

The Ontario Ministry of Natural Resources welcomes both women and men to the scientific and professional services as a valuable part of the ministry team.

This ministry is faced with the challenge of providing a wide variety of services for the people of Ontario. Among other responsibilities, we create opportunities for outdoor recreation and manage the province's natural resources. Our major task is to continue to keep our programs running smoothly and efficiently no matter what difficulties may arise. Our Scientific and Professional Services personnel are the people called upon to handle our resource management concerns.

How quickly are our resources being consumed? What dangers threaten our wildlife? How can we arrest the spread of diseases and infestation? These are some of the questions our Scientific and Professional Services people are finding answers to. Foresters, geologists and planners are just a few of the specialists striving to preserve the quality of this province's land, water, trees, mineral areas, fisheries, and wildlife. We invite you to join our cause. The natural wealth of close to ten million Ontario residents is at stake.

Forester

Ontario is one of the world's great forest areas. Not only do forests provide a background for recreation and a natural environment for wildlife (both important for the tourist industry), but they also supply the raw materials for a number of wood related industries that provide thousands of jobs for Ontario's citizens.

As a professional Forester, your occupation involves economics, recreation, wildlife habitat, erosion control and water balance. Perhaps being a Forester is more than you expected?

Foresters carefully regulate cutting, replant forest areas, advise private owners how to manage their woodlots, undertake forest research, and protect our valuable timber from fire, disease and insects.

The nature of the Forester's day-to-day work varies greatly from northern to southern Ontario. In the north, you primarily work with the forest extraction companies that harvest timber on Crown lands. In the south, your primary client is the farmer or rural landowner who benefits from your advice on tree planting and timber marketing. But one thing is always consistent: the Forester must be familiar with tree species, soil and site conditions, the volume of harvested wood and the pattern and nature of the land. Foresters are, by the nature of the work, far-thinking individuals who must be able to visualize the results of their efforts and be patient in watching the desired results materialize over decades.

As a Forester, you may be involved in an active and vigorous life outdoors as well as the necessary administrative follow-up to your field assignments. You should be as familiar with a computer as you are with a tree planting machine, a mechanical harvester or a waterbomber. Usually, obtaining a university degree from an approved Forestry course will help you accomplish this.

Project Engineer

Working with a wide variety of projects and services comprises the life of a Project Engineer. Be ready to travel. Our organization primarily uses engineers in advisory roles, but the involvement in a project can be quite extensive.

Our engineers supervise the construction of access roads and bridges in remote areas of northern Ontario. They study project feasibility and design, and provide expert engineering advice to ministry branches and conservation authorities. Our engineers also assist in the development of plans and proposals, review tenders from consultants and contractors, audit the progress of water control systems and review applications from the public to make sure that all projects in which the ministry has an interest meet satisfactory engineering requirements. A sound knowledge of project design and construction is therefore a necessity.

Most of our engineers have degrees in Civil Engineering and are members of the Association of Professional Engineers of Ontario.

Biologist

A Biologist is a trained professional who studies living organisms and their environments. With the ministry, you are charged with the duty of managing the fish and wildlife resources for the recreational and economic benefit of the people of Ontario.

Our deer and moose herds, waterfowl and fish are important parts of our outdoor recreational lifestyle and the province's tourist industry. We provide recreational opportunities and try to keep wildlife and fishery populations healthy through regulation and selective hunting and fishing methods. Ministry Biologists have a piece of all the action.

Initially, most Biologists are appointed to field projects such as appraising wildlife habitat conditions and estimating commercial pressures on wildlife. On the other hand, while working in a district office, you may be called upon to do extension work by helping private landowners develop good fish and wildlife practices on their land. Or perhaps you will become involved in the reclamation of a marsh, or a fish stocking program to establish new populations.

As a Biologist, you work under a variety of conditions depending on the specialty of your job and the area of the province to which you are assigned. You might be outdoors most of the year or your time might be split between laboratory, office work and outdoor activities. An honors biology degree is the minimum educational requirement.